HIGHWAY SAFETY

IN NEW JERSEY

A SPECIAL REPORT PUBLISHED AS A PUBLIC SERVICE

BY

① NEW JERSEY CITIZENS HIGHWAY COMMITTEE • SUMMER 1971
② Subcommittee on Highway Safety and Traffic Engineering.

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SPECIAL REPORT

SUBCOMMITTEE ON HIGHWAY SAFETY AND TRAFFIC ENGINEERING

NEW JERSEY CITIZENS HIGHWAY COMMITTEE

Summer 1971

"Every day about half the people in New Jersey go out and risk their lives on obsolete and overloaded highways and streets. Every day some of them die, a lot more are injured, and a lot more than that lose money in a traffic accident."

A Master Plan for Transportation - 1968
Department of Transportation,
State of New Jersey

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I. INTRODUCTION

This special report is an undertaking of the New Jersey Citizens Highway Committee to focus the attention of New Jersey's motoring public and appropriate officials on the menace of motor vehicle accidents -- and to offer some practical recommendations to reduce them.

We contend that highway safety in New Jersey is a concern too often taken for granted and too often assigned the lowest priority in attention and dollars in the long list of pressing problems.

We submit that human lives are being both lost and risked needlessly every day, and millions of dollars in economic losses are wastefully drained away annually because of inattention to highway safety.

The motoring public in New Jersey deserves a better break. One-third of the total amount of State government's annual expenditures is paid for directly by the motor vehicle user through fees and taxes. During 1970-71, for example, of $1.3 billion in total revenues collected by the State, New Jersey motorists contributed at least $430 million. This included $220 million in motor fuels taxes, $133 million in motor vehicle licensing and registration fees, and $77 million in sales taxes. The millions of dollars collected on New Jersey toll roads are not even included.

The New Jersey motorist today is paying for and is entitled to the best that our government can do to provide safer roads, safer machinery and safer drivers.

He is receiving far from the best.

Since New Jersey leads the nation in the percentage of highway user revenues diverted to non-highway purposes, it would seem that New Jersey has at least a moral obligation to increase the amount of funds being spent for highway safety.

While dollars should be of secondary concern when human lives are at stake, we do suggest that there are many specific actions that can be taken by government officials on various levels at minimal or modest cost -- actions that can begin paying dividends immediately in terms of saving lives, saving human misery and inconvenience, and preventing vast economic loss.

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II. TRAFFIC FACTS AND FORECASTS

New Jersey highway safety problems are affected by two unique considerations:

-- We have the highest vehicle density per mile of road of any State in the nation;

-- We are a corridor state with a phenomenal number of interstate vehicular movements.

Appendices A and B confirm this traffic density and corridor characteristic.

A Highway Environment Reference Book published by the Federal Highway Administration indicates that highway traffic will double in this nation by 1985 and redouble by the year 2000. In 1970, according to the Federal Highway Administration, the 109 million motor vehicles registered in the United States travelled an estimated 1.125 trillion miles.

New Jersey's 1966 report indicates (in Appendix C) the awesome projections in our State for the coming decades.

III. ACCIDENT RATES AND ECONOMIC LOSS

Despite the overwhelming statistics which indicate the tremendous impact which its highways have on all New Jerseyans, our State has been unable to provide up-to-date statistics on accident rates and economic loss although some effort now is being made for meaningful updating.

Such statistics are vital; they are the basic tool to assess our highway safety status, to spot trends, to pinpoint specific areas for corrective action, and to marshal public support and galvanize government action.

The last year for which significant county-by-county accident analyses are available is 1968. (Appendix D). In that year there was a total of 159,799 accidents of which 1,212 were fatal, 79,137 involved injuries and 79,450 involved property damage. (Totals for nine-year period of 1960-68 also shown.)

A fact little realized is the tremendous economic loss from traffic accidents which in the period from 1960 to 1967 was $1,403,091,840. Economic loss is based upon National Safety Council estimates of cost for each non-injury accident, injury-producing accident and fatal accident.

TRAVEL & ECONOMIC LOSS DUE TO
TRAFFIC ACCIDENTS
ON ALL ROAD SYSTEMS IN NEW JERSEY

YEAR	VEHICLE MILES TRAVELED	ESTIMATED ECONOMIC LOSS
1960	25, 454, 502, 898	$100, 035, 000.
1961	25, 597, 490, 000	140, 220, 000.
1962	28, 310, 000, 000	163, 800, 000.
1963	29, 715, 800, 000	170, 240, 000.
1964	30, 993, 600, 000	181, 867, 580.
1965	32, 459, 000, 000	198, 887, 750.
1966	33, 562, 600, 000	212, 641, 510.
1967	35, 535, 000, 000	235, 400, 000.
	241, 627, 992, 898	$1, 403, 091, 840.

During this period, the annual number of vehicle miles traveled increased by 40% while estimated economic loss soared by a staggering 135%.

Not taken into account by these cold dollar amounts is the hidden cost to industry and the motoring public in time lost by traffic congestion. The cost of almost all goods and services is directly increased by the transit time lost by motor vehicles and personnel.

Therefore, in addition to the savings in life and injury through accidents, which produce a quarter million accident reports here annually, New Jersey also has a direct economic interest in an improved highway safety program and would reap a significant return on dollars invested in this area.

IV. FEDERAL REVIEW OF STATE HIGHWAY SAFETY PROGRAM

While New Jersey ranked third lowest nationally in the mileage death rate in 1969 (based upon data from the National Safety Council's "Accident Facts" 1970 edition -- see table below) a more meaningful indication of our deficiencies may be found in a report released in February 1971 by U. S. Transportation Secretary John A. Volpe. He placed New Jersey in the lower middle grouping of all states in his "Highway Safety Standards Compliance Ranking." Each state was ranked in 16 different areas. New Jersey failed to receive a top "A" (fully implementing) rating in any of these areas. Our greatest shortcomings included driver education and licensing; accident location identification and surveillance; traffic records; highway design, construction and maintenance; pedestrian safety; police traffic services and debris hazard control and cleanup. We will discuss some of these subjects in the next section.

NEW JERSEY MOTOR-VEHICLE DEATH RATES 1969

Mileage Death Rate/100,000,000 vehicle miles

New Jersey	3.3*	(third lowest)
National	5.30	
New Mexico	8.0	(highest)
Connecticut	2.6	(lowest)

Registration Death Rate/10,000 motor vehicles

New Jersey	3.6	(fourth lowest)
National	5.27	
Wyoming	9.1	(highest)
Connecticut	2.4	(lowest)

Population Death Rate/100,000 population

New Jersey	17.8	(sixth lowest)
National	27.9	
Wyoming	69.1	(highest)
Connecticut	13.6	(lowest)

National Data 1969

Deaths	56,200
Injuries	2,000,000
Costs	$12,200,000,000
Motor-vehicle mileage	1,065,000,000,000

* N.J. toll road rates: Garden State Parkway 1.9; New Jersey Turnpike 1.12.

		(third lowest)
		(highest)
		(highest)
		(sixth lowest)
		(highest)

V. RECOMMENDATIONS

Chaos, confusion and congestion long have characterized much of New Jersey's road safety program, although there has been at least a fragmented effort to rectify some of the shortcomings.

New Jersey's safety effort has been severely handicapped by the lack of efficient, centralized management. This Subcommittee's own studies lead to the inescapable conclusion that those public officials and agencies specifically given the decision-making powers relating to highway safety matters tend to place far too low a priority on the problem. In any case, safety and highways, when competing for dollars against other priorities, fare poorly.

There is a tendency by governmental agencies today, especially at the Federal level, to direct considerable attention to safety devices in various types of motor vehicles, and insufficient attention to the human element, the incompetent driver, the inadequate and often illegal traffic control devices and regulations, the ineffective highway safety designs, the absence of uniform accident reporting requirements, and, above all, the lack of adequate law enforcement with regard to traffic rules and regulations. A drastic reorganization is needed in our traffic court system.

We do not quarrel with the Congressional determination that the most immediate benefits could be achieved by concentrating first on vehicle standards. However, if the Federal goal to reduce traffic accidents in half by 1985 is to be attained, added emphasis must be placed on the driver and the highway. Certainly we support efforts to curb the drunk driver, who is implicated in 50% of our nation's traffic fatalities.

There are several overriding requirements in New Jersey if our State is to improve its performance in highway safety.

A. Coordinate the Safety Effort

This Subcommittee believes that efforts to improve highway safety are seriously handicapped by the lack of a powerful State traffic safety executive. Efforts also are impeded by the absence of a smooth informational flow between the state and local levels. Further, it should be the State's responsi-

bility to provide safety workshops along with other programs and materials at the local level. Responsibility for various aspects of safety are fragmented into different agencies, including the Division of Motor Vehicles, for the driver; the Department of Transportation, for the road; the judiciary, the Attorney General's office and the State Police, for enforcement; and the Department of Education, for driver training. Missing is the one person to tie together each of these important but separate components into a coordinated attack.

This situation generates duplication, fragmentation, lack of responsibility and, most seriously, absence of a single authority dedicated solely to an improved safety program. We recommend that this void be filled promptly.

B. Revise Title 39

Many of our traffic engineering and safety problems could be resolved if the Legislature saw fit to revise and update New Jersey Title 39, "Motor Vehicles and Traffic Regulation," in accordance with the standards prescribed by the Federal Uniform Vehicle Code.

Our deficiencies in this area are reflected in the fact that New Jersey is ranked 37th among the states in degree of conformance to the Uniform Vehicle Codes according to the National Committee on Uniform Traffic Laws and Ordinances, a quasi-official organization based in Washington, D. C.

This is particularly regrettable in that New Jersey, the corridor state, has so many visitors from other states who easily may be confused by some of our non-standard traffic signs and control devices. Existing Title 39 now requires the use of signs and markings which do not conform with either the current Manual on Uniform Traffic Control Devices or the revised Manual adopted nationally this year.

New Jersey suffers critically from "political engineering" whereby political expediency rather than realistic traffic engineering practice often has the only real influence in making safety regulations and engineering changes. It is only through legislation that standards are updated and safety methods and needs upgraded. Then, too, New Jersey is often subject to "people engineering", whereby housewives with baby carriages block a roadway to attain such objectives as installing a questionable traffic light or stop sign.

Title 39 must be modernized and made more flexible to enable safety engineers to conform to the Federal standards as well as to institute changes as conditions require without the necessity of going to the Legislature each time the Federal standards are amended. Instead, reference would be made to the Federal Manual rather than enacting a new law every time a change is appropriate.

The Traffic Bureau of the State Department of Transportation and other traffic engineering units throughout the State are severely handicapped by the present statutory rigidity. Once Title 39 is updated, the appropriate State agency, by executive rather than legislative action, will be permitted to adopt new regulations on its own every time the Federal DOT amends its traffic control code.

The most immediate need in regard to conformance with the Federal Manual is the desirability of adhering to national standards on the size, color and/or wording of all traffic control devices. It is impossible under the present system for the Traffic Bureau to conform to new standards of lane markings, for example. The new Manual calls for a specific system of using yellow and white, solid and alternating lines to mark traffic patterns. These will be required on all interstate systems, and the safety hazard involved in using different markings on state and county roads should be obvious.

Another trend is that national standards now are calling for greater emphasis on the use of symbols, instead of words, which are required by New Jersey law.

New Jersey is not only at variance with other states in its system of signs and markings, but even within the State, many counties themselves use widely differing standards.

Another example of inflexibility in our traffic control devices is reflected in the four-way stop sign. New Jersey legislation prohibits the use of four-way stop signs at the intersection of two roads, although we are pleased to note that a bill (A-2032) to drop this restriction is, at this writing, wending its way through the State Legislature.

Because of the legal barrier, the Department of Transportation has been powerless to take any corrective action in those numerous instances where installation of a four-way stop sign is indicated. New Jersey's prohibition against four-way stop signs, at variance with the policy of most states, represents an outmoded

restriction imposed by the dead hand of the past. This type of control sign is a valuable safety measure, where warranted, in accordance with the Manual On Uniform Traffic Control Devices.

C. Build Better Roads

There is no doubt that the rate of highway accidents decreases significantly on modern, limited access highways. Example: the mobility afforded by its new 12-lane dual/dual has enabled the N.J. Turnpike to register phenomenal gains on the safety front. With over a half-billion vehicle miles chalked up on that facility, figures just released for the first quarter of 1971 show that the fatality rate dropped to an astounding all-time low of 0.9. Good roads pay big dividends in lives saved.

A recent Federal DOT report indicates that the death rate on interstate highways is substantially lower than on non-interstate highways. The following table shows accident savings on the new Interstate System as compared with the formerly traveled routes:

Type of Accident	Rural	Urban
Property Damage	38%	48%
Injury	39%	37%
Fatal	43%	15%

These savings are estimated at $15.8 billion. They are based on $475 per accident avoided for property damage, $1,800 per injury avoided, and $100,000 per fatality avoided.

Of course, not all roads can be limited access freeways, since land service arteries and collectors are necessary adjuncts to an efficient roadway network. However, with proper maintenance and reconstruction to eliminate unsafe conditions, accident rates on the land service system unquestionably would be reduced.

During the campaign for the 1968 Transportation Bond Issue, which the public approved overwhelmingly, safety improvements were cited as a major reason for the need to expend that large sum of money on new roads. Yet, as is well known, that bond issue has been able to finance only a small percentage of the State's priority road improvements. Further, the effectiveness of this "minimum needs" bond issue was reduced even more due to the diversion of bond money from construction projects to operating costs. Moreover, since the normal level of State appropriations for highway construction was reduced following bond issue approval, still further dilution occurred in the amount which was to go toward meeting minimum intrastate highway needs.

The importance of the bond issue from a safety standpoint was underscored by the Transportation Department's 1968 Highway Master Plan which led to the Transportation Bond Issue that year. That report said the recommended "first priority" construction program to be covered by bond funds if adopted, ultimately would save more than 500 lives, 70,000 injuries and $1.3 billion in the total cost of accidents. "The safest highway yet produced is the freeway," the Master Plan stated. "The record, in New Jersey as elsewhere, proves it."

And despite the $440 million voted for new road construction, New Jersey's highway network, with the exception of the Interstate system, is "steadily deteriorating," Transportation Commissioner John C. Kohl told the New Jersey Citizens Highway Committee at its annual meeting last October.

It is obvious that a prime ingredient in an improved safety record for New Jersey is the updating of the highway program and the implementation of a greatly expanded, long range highway construction and maintenance program.

We would further recommend that a comprehensive plan for highway safety be incorporated into DOT's forthcoming Master Plan. We urge the DOT to use the revised Master Plan to show the public that its support for a modern road system will substantially enhance the chances for survival on our highways.

D. Improve the Traffic Bureau

It is essential that the Traffic Bureau of the Department of Transportation receive adequate funds and personnel so that it can fulfill the functions assigned to it. The bureau now has a backlog of 350 traffic engineering and safety problems, including 200 on the local level, which it is incapable of handling under present circumstances. These include such locally important matters as requests for new traffic signals, illegal or inoperative traffic lights, evaluation of new speed limits, marking of no passing zones, establishing truck routes, one-way street markings and parking prohibitions. Furthermore, local traffic engineering units must be formed or strengthened to relieve the State of some of the obligation.

We are pleased to note that DOT plans a stepped up traffic surveillance program through the use of four helicopters to be supplied by the Federal Highway Safety Bureau. This will enable the State Police to survey high volume or high accident locations and direct remedial action. We hope that this program can be expanded.

In another area of critical concern to highway safety, the Bureau has only six traffic engineers to handle night driving inspections. While we are pleased at the Department's recent announcement that it would place new emphasis on this area, it should be noted that this applies only to the State system, which covers but 2,000 of the 30,000 miles in the New Jersey road system (6,000 county miles, 22,000 local miles and 350 miles of toll roads). Night-time surveillance is needed on a systematic basis for all of the state's roadways because only then are many of the hazards evident.

Traffic engineering is the lifeblood of any program to reduce accidents. New Jersey's capabilities in this area are woefully inadequate due to insufficient personnel and funds.

An example of what can be achieved by improved safety engineering is shown in an analysis of what occurred after improvements were made at the intersection of Routes 4 and 208 with Saddle River Road in Fair Lawn. This long was considered among the most hazardous intersections in Bergen County. Though further improvements are considered necessary, Fair Lawn police credited the redesign of the intersection in 1969, to include a high concrete barrier and revamped exits and traffic patterns, for a 60 to 70 percent reduction of accidents in that area.

E. Up-to-Date Statistics

As indicated previously, New Jersey is far behind in its work to provide meaningful and essential statistics on accidents. We are told that this is a result of mechanical problems relating to the transfer of information to a computer system, plus the recent transfer of local traffic engineering responsibilities and some phases of accident analysis from the Division of Motor Vehicles to the Department of Transportation.

However, the almost total lack of significant statistics to cover the three-year period from 1968 to 1970 indicates that this area has been given an excessively low priority interest by the State. We believe that those State officials responsible for curbing our accident rate on all systems of roads should assure the DOT of adequate personnel and funds to bring our accident-data gathering process to maximum efficiency. It also is essential, according to the traffic engineers we interviewed, to develop a simple, inexpensive method to deliver

detailed accident information to DOT and county and local traffic engineering and law enforcement agencies for proper analysis. This would enable DOT and local officials to keep informed of high frequency accident locations.

We would also urge that New Jersey take appropriate steps to ensure that counties adopt the system of marking highways with mile markers or acceptable alternates to provide more accurate accident reporting. There is a Federal funding program to help accomplish this, and the State should require county compliance. The most obvious argument in favor of faster accident reporting and statistical analysis is that this serves to identify dangerous conditions and suggest possible counter measures.

F. Improved County Safety Programs

A recent report of the New Jersey County Engineers Association, "Summary of New Jersey Counties' Traffic Data," indicates a lack of staff and continuity among the various counties in traffic control procedures and traffic safety. The report also points up the fact that only five counties have at least one graduate traffic engineer while eight others have personnel with Rutgers University certification in traffic design and control. Eight counties have no traffic engineers of any kind, a situation which should be corrected. In view of the close correlation between highway safety and traffic engineering, this subcommittee recommends that the State require every large county to have at least one qualified traffic engineer and every smaller county to have a trained specialist to handle both engineering and safety.

Federal TOPICS (Traffic Operations Program to Increase Capacity and Safety). These Federal funds are supplied to counties and municipalities to induce them to make minor revisions in existing roads and streets without contemplating major construction to achieve the objective. Counties and municipalities should make every effort to take advantage of this program.

G. Illegal Signals and Signs

Good traffic engineering saves lives. Improper or inadequate traffic engineering causes accidents. In New Jersey there is an uncounted but large number of illegally erected traffic control devices. In many cases, these not only impede traffic but may also contribute to accidents.

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There is a strong need for New Jersey legislative action which will make it possible for the DOT to remove illegal signals and signs. DOT also needs sufficient personnel to implement this. Title 39 may provide the method, but it is not being enforced. While current legislation makes unauthorized signals illegal, there is no effective means of enforcing the statutes.

There are three major categories of signals and signs which must be considered: 1) traffic control devices which are in place but have not yet received formal approval; 2) illegal control devices which have not been and can not be authorized due to poor traffic engineering; 3) legal control devices and signs which have become or are becoming obsolete due to changed traffic or physical conditions.

The DOT has requested that utility companies refuse to supply power unless a traffic control device has been authorized by the State. The companies have refused to do this, however, maintaining that they can not legally refuse to provide the service. Legislation to require utilities to service only authorized signals, as is done in Ohio and other states, should be approved in New Jersey.

A funding incentive program by the State for installation of legal devices may at least be a partial remedy.

Illegal traffic control devices do not constitute safety hazards merely because they are illegal. The required procedure for design and direction of traffic control devices has been established to ensure standardization and conformance with accepted engineering practices and to ensure enforceability in accordance with statutory requirements.

Even with recently improved procedures, securing the proper review and approvals from the Traffic Bureau (DOT) is a lengthy process. Many control devices are erected illegally by local officials frustrated and/or pressured by public hue and cry over the delay. Many of these illegal devices are of perfectly adequate design and construction and would be completely legal had proper procedure been followed. On the other hand, many are inadequately designed or improperly erected or, more commonly, erected at locations where their use is not warranted. If the general public is aware that a particular control device is illegal (and, therefore, unenforceable) it tends to breed disrespect, not only for that installation but for all traffic control devices.

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H. Proper Maintenance

The "bomb crater" pothole confronting the on-rushing driver frequently is the cause of accidents. Many harrassed government officials, faced with an onslaught of public outcry against potholes, would have us believe that they are caused strictly by an Act of God. Actually the contrary is true. Potholes are usually caused by a lack of proper maintenance -- not an Act of God. The deterioration of roadways and particularly bridge surfaces, is due to inadequate maintenance, personnel and funds, particularly the failure to clean drainage ditches, drain lines and curb and gutter portions of roadways.

New Jersey's expenditures for maintenance of existing roads is thoroughly inadequate. Not only does poor maintenance constitute a substantial safety hazard, but it leads to the general deterioration of our road network which, in the long run, requires substantially higher costs to rectify.

We would urge the State, counties and municipalities to review their maintenance programs, including funding, procedures and staff, with an eye toward providing a level adequate to preserve our highways and to keep them in a safe condition.

I. Safety and Seat Belts

One professional study after another indicates that seat belts and shoulder harnesses are by far the most effective current means to reduce the severity of personal injury in automobile accidents. The National Safety Council estimates that between 8,000 to 10,000 lives a year would be saved if every car occupant wore his safety belt every time he entered a car. "Beyond question", the Council said, "the full use even of the old fashioned lap belts would have a massive effect in saving lives and preventing injuries." It is quite obvious that an accelerated campaign by the State to encourage increased use of the seat belt would result in a dramatic reduction in fatalities and injuries in New Jersey. We recommend that this be given priority attention by the appropriate State agency.

J. Safety Spot Checks

We recommend that the State institute an adequate and effective system of traffic spot checks to assure the adequacy of lights, tires and braking systems on every motor vehicle driving on New Jersey roads. Governor Cahill has signed

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legislation making it illegal to drive in New Jersey with worn tires. We applaud this step but we believe that special checks must be made on New Jersey roads to guarantee that the law is enforced. Testing of the tires at motor vehicle inspection stations will not suffice since tires, as well as other mechanical devices can rapidly deteriorate during the twelve-month period between each compulsory inspection.

For 1969, 11% of fatal turnpike accidents in the United States involved vehicle defect. Defective tires were reported in 10% of fatal accidents; defective brakes in 1%. Another 17% of all turnpike accidents involved vehicle defect.

K. The Drunken Driver

Every safety official knows that drunk drivers constitute the most serious menace of all to the motoring public. Despite this, the rate of apprehension and conviction of drunken drivers has proved to be so frustrating to law enforcement officials that a thorough review of drunk driver laws is essential.

U. S. Transportation Secretary Volpe has stated that alcohol is a factor in 50 to 60 % of all automobile accidents and the cause of at least 30,000 deaths and 800,000 crashes annually.

In New Jersey there were 605 drivers who died in traffic accidents last year who were under the influence of alcohol. Under the new implied consent law, the driver, when he gets his license, agrees to let police give him an alcohol test. If he refuses the test, the license is automatically revoked for six months. Despite this and other improved procedures, many state officials now are becoming convinced that this approach alone is insufficient to curtail this increasing incidence of drunken driving.

This Sub-committee supports two programs aimed at providing more effective counter-measures to the problem. We urge the adoption of legislation recommended by the American Automobile Association of New Jersey to study the feasibility of adopting a rehabilitation program for the alcohol-influenced driver. As the AAA pointed out, it is difficult to accept or understand the fact that New Jersey presently does not spend one single dollar on an alcohol control program. We furthermore urge that every effort be made to implement a proposed experimental

project in Bergen County which would involve spot road checks to determine the extent and causes of drinking drivers. In seeking Federal funds for the project, its sponsors point out that the program would answer questions that would provide a more realistic and rational basis for conceiving countermeasures whose thrusts would be focused more sharply on relevant target areas, whether they deal with enforcement, punishment, education or rehabilitation.

At the same time, we would ask State officials to take positive action on former State Motor Vehicle Director Ronald M. Heymann's observations that law enforcement measures in New Jersey are presently insufficient to serve as an effective deterrent to drunken driving.

L. Ineffectual Planning

The Department of Transportation is now studying proposed legislation which would require that traffic problems attendant to residential and commercial developments become a consideration in the planning of these developments. We are in full accord with this proposal and believe that in those cases where road construction or improvements are needed because of increased traffic demand or hazards, no permit should be issued to the developer unless he is prepared to provide a solution to these problems.

A prime example of the lack of such preparation may be found in the chaotic traffic conditions surrounding the new shopping centers, industrial complexes and similar traffic generating facilities throughout New Jersey. Just as a developer must obtain a building permit, an electrical permit or a sanitation permit and comply with recently enacted environmental codes, he similarly should be required to secure a permit indicating that he is prepared to meet all traffic engineering and safety needs on and adjacent to the site before he is allowed to begin construction.

In the past, the State has developed comprehensive highway master plans to guide the improvement needed to the existing system of roads and public transportation facilities. It is this Sub-committee's understanding that the current Master Plan is being updated by the State Department of Transportation. This should be a continuing program - re-evaluating and updating State transportation plans - providing

for the construction and reconstruction of major roads and arterials and the financing thereof to satisfy the present and future transportation needs of New Jersey.

In connection with the State's work on such a plan, it should develop a continuing program to assist counties in similar planning of a coordinated system of county and local arterials to complement the State system of highways. Particularly in urbanized areas it can be folly to construct freeways and other major highways if the motoring public must travel congested local arterials between their homes and the freeway interchanges. Such plans would account for the land development and redevelopment and suggest arterial improvements and new roads to accommodate the traffic volumes associated with the land uses.

As in any household, planning and budgeting are "musts" to meet family needs now and in the future.

M. Construction Site Hazards

The lack of proper signs, barricades and warning signals on maintenance and construction projects demand special attention. Often a motorist driving at 50 miles per hour or more is unaware of a road project until he is almost on top of it. Frequently there are no signs or lights near the project during night time hours. Catch basins and traffic lanes may be unmarked. The State Department of Transportation informs us that it simply does not have sufficient personnel to enforce State regulations covering signs and signals on construction projects. Since this is such an obvious cause of accidents, we believe it essential that sufficient personnel be assigned to this task.

N. Driver Education

The National Highway Safety Act requires that there be a driver education and training program available to all youths of licensing age, taught by instructors certified by the State. New Jersey has not made this program mandatory. The youth of the State should be required to undergo this instructional course which teaches responsible driving habits. The Committee urges that legislation be enacted to require mandatory driver education throughout the secondary school system, coupled with adequate State funding.

VI. CONCLUSION AND SUMMARY

New Jersey has failed to pursue an aggressive course when it comes to road safety. Part of the problem is that the State has neglected to fix traffic safety responsibilities and coordination in any one agency or individual; another is that we just do not have a sufficiently modern road system to make substantial safety progress. But even more than that, perhaps our greatest failing -- in both the public and its officials -- is one of attitude. Mention safety, and usually the reaction will be massive apathy. Safety just doesn't have status in New Jersey.

New Jersey's traffic safety record is not so good as to be praised nor so bad as to be condemned. The result is that this State does relatively little to upgrade its safety standards, and too few care.

The Subcommittee on Highway Safety and Traffic Engineering of the New Jersey Citizens Highway Committee believes that a far more forceful approach is needed to curtail the mounting number of accidents leading to deaths, injuries and economic loss. In this report we have pointed toward some of the steps -- but certainly not all -- that might be taken to obtain a vastly improved New Jersey highway safety record.

Following is a summary of this Subcommittee's recommendations, divided into appropriate categories. We hope that they will receive the serious consideration of those who are in a position to help the citizens of New Jersey to obtain the ultimate goals of this Subcommittee -- the safest roads for the safest vehicles for the safest drivers in the nation.

A. Road

.. Update State highway plans and provide adequate, dependable, long range funding for the construction and reconstruction of highways, roads and streets; assist counties in similar planning and financing of a coordinated system of county and local arterials and feeders to complement the State highway and toll road systems.

.. Speed up modernization of road network and eliminate unsafe conditions.

.. Improve and greatly expand road maintenance programs.

.. Improve planning of traffic patterns as they affect new developments.

.. Eliminate illegal signs and signals.

B. Driver

.. Accelerate public education campaign to encourage greater use of seat belts and shoulder harnesses.

.. Launch new approach to the drunken driver problem and implement proposed experimental project to determine extent and causes of drinking drivers.

.. Institute mandatory driver education program for all new drivers.

.. Ensure adequate warning and control at construction sites.

C. Vehicle

.. Institute statewide system of vehicle safety road checks to supplement annual inspection station tests.

D. General

.. The overriding need in New Jersey road safety is to fix overall responsibility for all State highway safety matters in one strong executive.

.. Revise Title 39 to allow adoption by reference of the Federal Manual On Uniform Traffic Control Devices (MUTCD), thereby permitting flexibility in the adoption of new standards by administrative rather than legislative order.

.. Provide sufficient funds and personnel to the heavily overburdened traffic bureau of the State Department of Transportation.

.. Implement helicopter surveillance of congested and high accident locations.

.. Modernize accident reporting procedures.

.. Upgrade county safety programs.

APPENDIX A

NUMBER OF MOTOR VEHICLES PER MILE OF ROAD
New Jersey, Study Area, and the United States
1955-1966

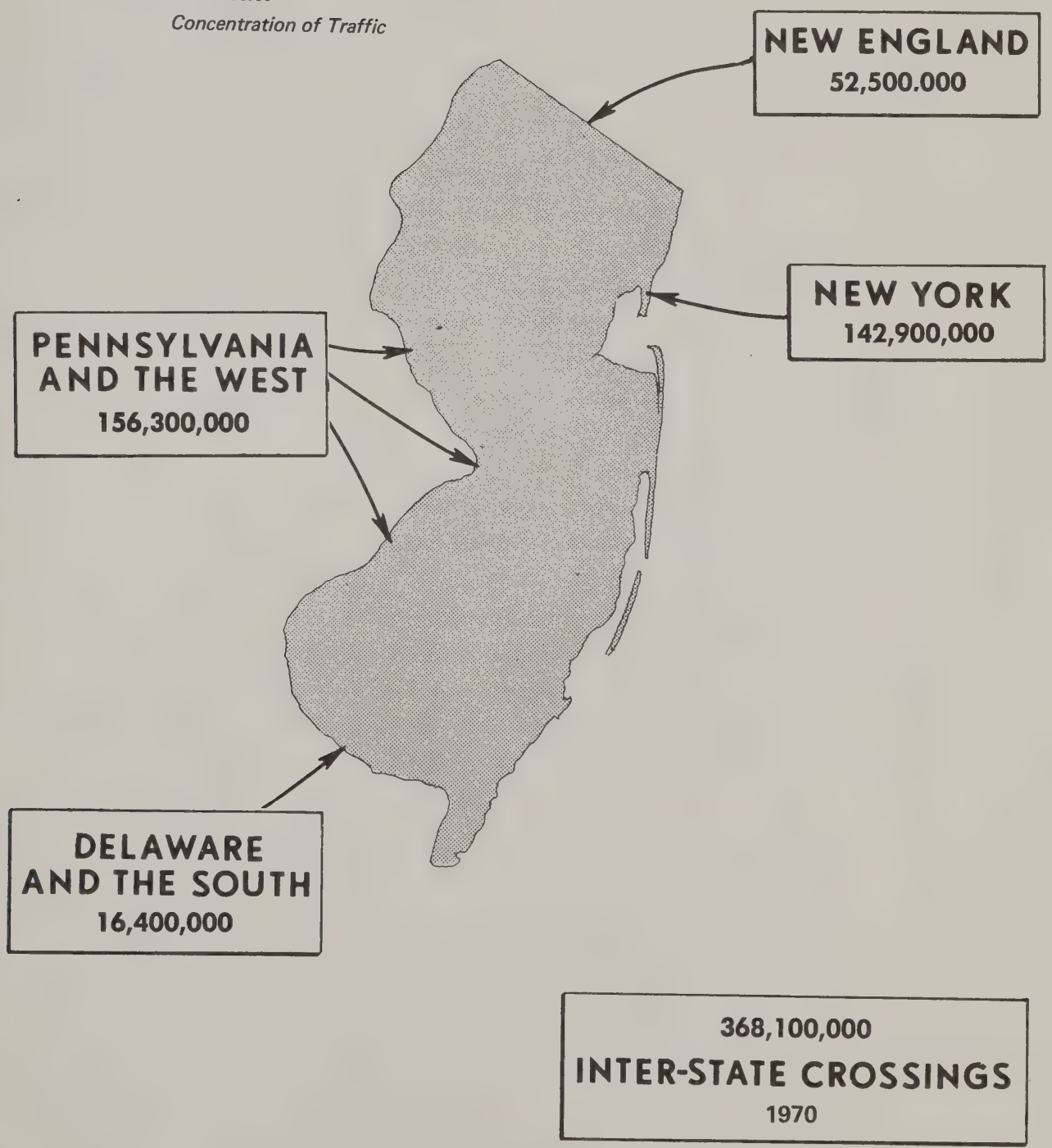
YEAR	NEW JERSEY	CONNECTICUT	DELAWARE	MARYLAND	NEW YORK	PENNSYLVANIA	RHODE ISLAND	STUDY AREA	UNITED STATES
1955	70.9	59.0	34.8	46.5	44.5	35.2	74.3	45.0	18.4
1956	72.6	61.3	36.5	48.5	45.7	36.5	73.5	46.4	19.0
1957	73.8	63.5	37.7	49.1	45.3	37.0	76.9	46.7	19.4
1958	76.9	62.7	38.4	48.2	46.2	37.4	77.6	47.4	19.6
1959	74.4	63.5	39.8	50.0	47.3	38.4	79.3	48.3	20.3
1960	77.1	66.2	41.5	51.8	47.6	39.2	81.1	47.8	20.8
1961	78.4	67.6	42.8	52.5	48.6	40.0	79.7	50.5	21.2
1962	80.7	70.2	44.6	55.2	50.1	40.8	82.0	51.9	21.9
1963	84.7	73.8	46.8	57.6	54.7	42.0	82.9	54.9	22.8
1964	88.3	77.0	49.2	60.4	56.3	43.4	86.4	56.9	23.6
1965	91.8	80.0	51.0	59.1	57.6	44.5	87.5	58.2	24.5
1966	94.2	83.4	53.2	60.6	60.3	46.0	90.9	60.5	25.5

SOURCE: United States Department of Transportation, Bureau of Public Roads, *Highway Statistics, respective years,* Tables MV-1 and M-1. Excludes motorcycles.

APPENDIX B

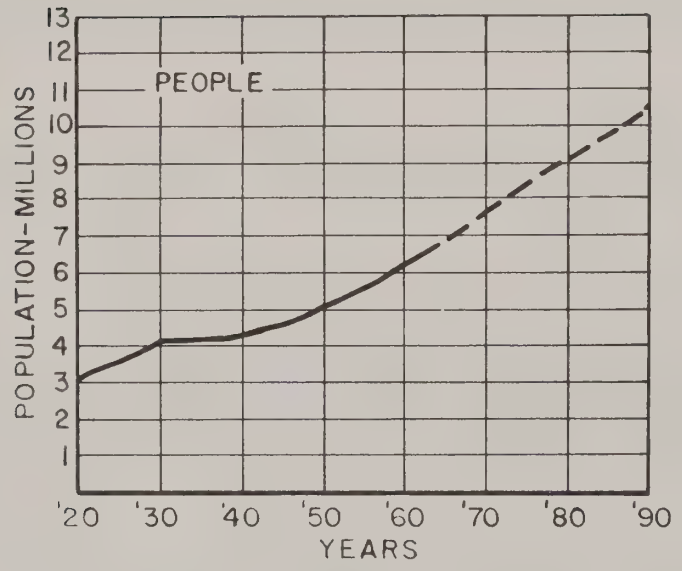
NEW JERSEY IS A CORRIDOR STATE

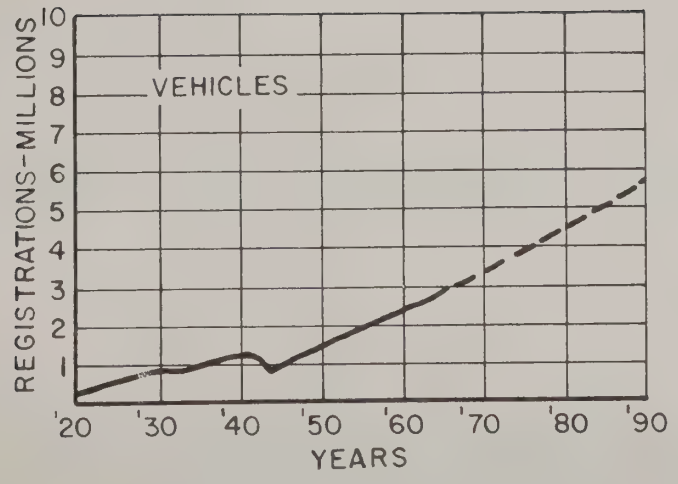
Over its Highways flows
the World's Greatest
Concentration of Traffic

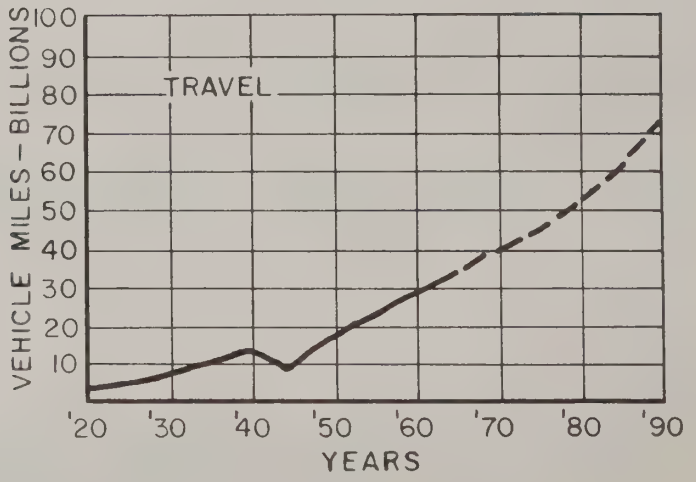


APPENDIX C

GROWTH TRENDS







ACCIDENTS BY COUNTIES AND ROAD SYSTEMS IN NEW JERSEY - 1968

COUNTY	ACCIDENTS				CASUALTIES	
	TOTAL	FATAL	INJURY	PROP. DAM.	KILLED	INJURED
ATLANTIC	3288	54	1789	1445	65	3167
State	1270	23	732	515	25	1401
County	1022	22	553	447	23	967
Municipal	996	9	504	483	17	799
BERGEN	20637	105	9805	10727	117	15342
State	6155	49	3162	2944	55	5307
County	9052	44	4378	4630	49	6821
Municipal	5430	12	2265	3153	13	3214
BURLINGTON	4282	53	2465	2310	63	4091
State	1780	23	951	806	28	1744
County	1984	20	1027	937	24	1636
Municipal	1064	10	487	567	11	711
CAMDEN	8576	75	4592	3909	85	7371
State	3481	47	1946	1488	57	3418
County	3155	21	1713	1421	21	2620
Municipal	1940	7	933	1000	7	1333
CAPE MAY	1407	17	646	744	22	1200
State	281	9	148	124	11	330
County	472	5	217	250	8	390
Municipal	654	3	281	370	3	480
CUMBERLAND	2448	48	1238	1162	51	2096
State	690	14	352	324	14	550
County	1075	33	568	474	36	1036
Municipal	683	1	318	364	1	510
ESSEX	23775	113	11475	12187	119	17779
State	2639	25	1342	1272	28	2192
County	6993	39	3625	3329	41	5578
Municipal	14143	49	6508	7586	50	10009
GLOUCESTER	2854	61	1450	1343	74	2510
State	1386	33	732	621	39	1354
County	1079	24	535	520	30	895
Municipal	389	4	183	202	5	261
HUDSON	11476	64	5684	5728	71	8680
State	2418	20	1287	1111	25	2181
County	4306	21	2220	2065	22	3426
Municipal	4752	23	2177	2552	24	3073
HUNTERDON	1322	14	585	723	16	938
State	719	11	328	380	12	557
County	347	1	159	187	2	240
Municipal	256	2	98	156	2	141
MERCER	6269	41	3177	3051	43	4900
State	1693	15	904	774	15	1513
County	1737	13	876	848	15	1352
Municipal	2839	13	1397	1429	13	2035

ACCIDENTS BY COUNTIES AND ROAD SYSTEMS IN NEW JERSEY - 1968

COUNTY	ACCIDENTS				CASUALTIES	
	TOTAL	FATAL	INJURY	PROP. DAM.	KILLED	INJURED
MIDDLESEX	12440	90	6254	6096	100	9993
State	4592	43	2461	2088	51	4162
County	4490	31	2282	2177	33	3580
Municipal	3358	16	1511	1831	16	2251
MONMOUTH	10308	86	5059	5163	102	8300
State	3668	38	1979	1651	47	3419
County	2730	26	1351	1353	29	2231
Municipal	3910	22	1729	2159	26	2650
MORRIS	7333	53	3750	3530	55	6023
State	3292	28	1771	1493	29	3069
County	2201	22	1101	1078	23	1687
Municipal	1840	3	878	959	3	1267
OCEAN	4246	48	2179	2019	51	4088
State	1818	21	976	821	22	1912
County	1857	24	939	894	26	1690
Municipal	571	3	264	304	3	486
PASSAIC	10619	52	5424	5143	54	8469
State	2390	19	1257	1114	20	2082
County	5029	27	2603	2399	28	4044
Municipal	3200	6	1564	1630	6	2343
SALEM	1379	24	574	781	28	923
State	581	9	251	321	11	414
County	552	12	254	286	14	419
Municipal	246	3	69	174	3	90
SOMERSET	4141	33	2091	2017	39	3342
State	1737	15	929	793	18	1617
County	1369	13	686	670	15	1027
Municipal	1035	5	476	554	6	698
SUSSEX	1414	20	755	642	17	1210
State	680	14	363	306	11	634
County	444	4	248	192	4	361
Municipal	290	2	144	144	2	215
UNION	13317	72	6313	6932	77	9569
State	4182	26	2148	2008	28	3423
County	3677	14	1751	1912	16	2646
Municipal	5458	32	2414	3012	33	3500
WARREN	1432	23	713	696	25	1146
State	729	15	363	351	15	612
County	320	7	164	149	9	240
Municipal	383	1	186	196	1	294

Source: New Jersey Department of Transportation
Division of Research & Development
Bureau of Accident Records

ACCIDENTS IN NEW JERSEY - PART II - 1960 to 1968 INCLUSIVE

COUNTY	ACCIDENTS				CASUALTIES	
	TOTAL	FATAL	INJURY	PROP. DAM.	KILLED	INJURED
ATLANTIC	28717	435	14244	14038	509	24648
State	10423	224	5415	4784	269	9858
County	7956	125	3844	3987	141	6823
Municipal	10338	86	4985	5267	99	7967
BERGEN	178252	664	74809	102779	737	119493
State	52646	283	24740	27623	330	42890
County	74518	269	31486	42763	292	49350
Municipal	51088	112	18583	32393	115	27253
BURLINGTON	39182	430	17194	21558	497	29756
State	14642	205	6943	7494	241	12980
County	15638	172	6856	8610	192	11572
Municipal	8902	53	3395	5454	64	5204
CAMDEN	78005	493	35789	41723	567	59148
State	30410	243	14943	15224	286	27108
County	28775	185	13212	15378	208	21063
Municipal	18820	65	7634	11121	73	10977
CAPE MAY	11630	129	4852	6649	148	8494
State	2450	48	1176	1226	59	2185
County	3254	50	1439	1765	59	2611
Municipal	5926	31	2237	3658	30	3698
CUMBERLAND	18558	303	8522	9733	333	14562
State	5134	91	2417	2626	96	4223
County	7694	178	3655	3861	201	6434
Municipal	5730	34	2450	3246	36	3905
ESSEX	221117	785	93586	126746	847	146291
State	24666	180	11108	13378	212	18799
County	59715	221	26600	32894	234	42094
Municipal	136736	384	58878	80474	401	85398
GLOUCESTER	22966	362	10649	11955	431	18804
State	10786	194	5277	5315	238	9939
County	8866	137	4094	4635	160	6965
Municipal	3314	31	1278	2005	33	1900
HUDSON	111632	468	48495	62669	509	75968
State	24807	145	11550	13112	166	20185
County	42206	185	18802	23219	199	29320
Municipal	44619	138	18143	26338	144	26463
HUNTERDON	10957	162	4391	6404	179	7415
State	5481	108	2349	3024	117	4282
County	2889	38	1189	1662	46	1866
Municipal	2587	16	853	1718	16	1267
MERCER	56213	324	23502	32387	346	37195
State	14419	130	6618	7671	140	11383
County	12549	91	5500	6958	99	9068
Municipal	29245	103	11384	17758	107	16744

ACCIDENTS IN NEW JERSEY - PART II - 1960 to 1968 INCLUSIVE

COUNTY	ACCIDENTS				CASUALTIES	
	TOTAL	FATAL	INJURY	PROP. DAM.	KILLED	INJURED
MIDDLESEX	99577	553	43930	55096	618	71894
State	35001	277	16957	17767	310	29809
County	36019	187	15999	19835	215	25554
Municipal	28557	89	10974	17494	93	16531
MONMOUTH	75877	553	34058	41266	626	60028
State	28308	257	13995	14056	294	26425
County	19243	166	8722	10355	184	15865
Municipal	28326	130	11341	16855	148	17738
MORRIS	62605	383	26583	35639	421	43715
State	26156	202	12195	13759	231	21547
County	18665	121	7722	10822	126	12136
Municipal	17784	60	6666	11058	64	10032
OCEAN	30288	320	14260	15708	347	25217
State	13095	144	6448	6503	163	11524
County	12629	157	6006	6466	165	10668
Municipal	4564	19	1806	2739	19	3025
PASSAIC	102599	356	43288	58955	381	67462
State	21817	111	9784	11922	120	16176
County	43756	179	19012	24565	192	29669
Municipal	37026	66	14492	22468	69	21617
SALEM	10252	179	4208	5865	209	7186
State	4720	77	1957	2686	91	3511
County	3863	85	1610	2168	101	2732
Municipal	1669	17	641	1011	17	943
SOMERSET	32710	239	14293	18178	253	23547
State	14276	131	6563	7582	142	11493
County	10168	84	4494	5590	86	7145
Municipal	8266	24	3236	5006	25	4909
SUSSEX	11832	139	5029	6577	147	8442
State	4970	71	2258	2644	78	4060
County	3812	48	1606	2158	49	2555
Municipal	3050	20	1165	1775	20	1827
UNION	119368	372	49952	69044	398	77625
State	38841	156	17759	20926	169	29204
County	30959	97	13206	17656	105	20404
Municipal	49568	119	18987	30462	124	28017
WARREN	11774	165	4969	6640	188	8385
State	5559	104	2397	3058	120	4318
County	2396	42	1063	1291	49	1755
Municipal	3819	19	1509	2291	19	2312

Source: New Jersey Department of Transportation
Division of Research & Development
Bureau of Accident Records

ACCIDENTS IN NEW JERSEY - PART II - 1960 to 1966 INCLUSIVE

COUNTY	ACCIDENTS				CASUALTIES	
	TOTAL	FATAL	INJURY	PROP. DAM.	KILLED	INJURED
MIDDLESEX	99577	553	43930	55096	618	72894
State	35002	277	16957	17767	320	29809
County	36019	187	15999	19835	215	25554
Municipal	28557	89	10971	17894	93	16531
MONMOUTH	75877	553	34058	41266	656	60028
State	28308	257	13995	14056	298	26425
County	13243	166	8722	10355	168	15865
Municipal	28326	130	12341	16855	118	17738
MORRIS	62605	383	26583	35639	421	43715
State	26156	202	12295	13759	231	21547
County	18665	121	7722	10822	126	12736
Municipal	17781	60	6666	11058	64	10032
OCEAN	30288	320	11260	15708	347	25717
State	12095	114	6118	6503	163	11528
County	12629	157	6006	6466	165	10668
Municipal	4564	49	1806	2739	19	3025
PASSAIC	10259	356	43288	58952	381	67162
State	21817	111	9784	11922	120	16179
County	43756	179	19012	24565	192	29669
Municipal	37026	66	14492	22468	69	21617
SALEM	10252	179	4208	5865	209	7286
State	4750	77	1957	2668	91	3522
County	3863	85	1610	2168	102	2732
Municipal	1669	17	644	1011	17	983
SOMERSET	32710	239	14293	18178	252	23517
State	14276	132	6563	7582	146	11493
County	10268	84	4494	5590	86	7465
Municipal	8266	24	3236	5006	25	4909
SUSSEX	11832	139	5029	6577	147	8442
State	4970	72	2258	2641	78	5060
County	3812	48	1606	2158	49	2555
Municipal	3050	20	1165	1775	20	1827
UNION	42968	372	18252	24344	398	27625
State	18841	156	7775	10910	169	12920
County	13959	97	5206	7656	105	10104
Municipal	4956	119	1898	3046	124	4601
WARREN	11774	165	4969	6640	188	8385
State	5559	104	2397	3058	120	4318
County	2396	42	1063	1291	49	1755
Municipal	3819	19	1509	2291	19	2312

Source: New Jersey Department of Transportation
Division of Research & Development
Bureau of Accident Records

"And I meet all of 'em on the way home"

The Evening News
Newark, N. J.